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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/616,499	07/09/2003	Fred A. Brown	917/A01	1760
2101 7590 05/01/2007 BROMBERG & SUNSTEIN LLP 125 SUMMER STREET BOSTON, MA 02110-1618			EXAMINER DWIVEDI, VIKANSHA S	
			ART UNIT 3746	PAPER NUMBER
			MAIL DATE 05/01/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

10/616,499

Applicant(s)

BROWN, FRED A.

Examiner

Vikansha S. Dwivedi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/6/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirao et al. (U.S. Patent number 6,709,111) in view of Flory IV (U.S. Patent number 6,388,392) and further in view of Hardy (U.S. Patent number 4,618,803)

Hirao et. al. teaches a fan controller for controlling the rotation of a rotor having a fan blade (5), rotation of the rotor being controlled by rotor circuitry (Shown in Figure 1), the fan controller comprising: an input for receiving an input voltage (V0), the rotor circuitry being energizable by the input voltage; Hirao does not disclose capacitive storage in electrical communication with both the rotor circuitry and the input, the capacitive storage capable of charging by receiving current from the input; and a current limiting element coupled between the input and the capacitive storage, the current limiting element at least in part controlling current flow from the input to the capacitive storage. Flory IV discloses an energy storage apparatus to ensure continued power supply during operation without interruptions. Flory IV discloses a capacitive storage (48) capable of charging by receiving current from the input (18) and a current limiting element (62) coupled

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between the input (As shown in Figure 7 and 8) and the capacitive storage (As shown in Figure 7 and 8), the current limiting element (62) at least in part controlling current flow from the input (INPUT, Figure 7) to the capacitive storage (Figure 8); wherein the current limiting element (62) is configured to control current flow from the input to the capacitive storage at least in part as a function of the amount of current required to be drawn by the circuitry; wherein the capacitive storage includes a plurality of series capacitors (Comprises of several capacitors 54a, 54b, 54c and 54d connected in a series circuit 56 as shown in Figure 4); wherein the current limiting element (62) is configured to ensure that the circuitry has sufficient current to operate when the storage element is storing power; wherein the current limiting element (62) is configured to ensure that the operation begins substantially immediately after start-up. Flory IV discloses continued operation that indicated that the operation begins within one second after start-up (Column 2, lines 47-61). According to Flory, the current limiting element (62) is not coupled between the input and the control circuitry (Figure 2); wherein the current limiting element (62) isolates the control circuitry (Control circuitry connected to power bus 20) from the storage element. Hardy discloses a current limited charge circuit wherein the current limiting element is a PTC.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cooling fan controller disclosed by Hirao in view of Flory IV and Hardy for the purpose of providing a continuous energy storage without interrupting the power supply to the motor and to provide a

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simple and economical way to control current flow of a charging circuit to avoid high current drains in energy storage by using PTC.

With regard to claim limitation "a backup power supply for supplying electric power to fan rotor circuitry that controls rotation of a fan rotor" it should be clear that Claim preamble language may not be treated as a limitation where it merely states an intended use of the system and is unnecessary to define the invention, refer to MPEP 2111.02 (II) for further explanation. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

With regard to claim limitation "the series combination of the current limiting element and the capacitive storage being coupled in parallel with the rotor circuitry" Flory provides motivation to arrange the circuit in either series or parallel (summary of invention).

Claims 25-27 are rejected under 35 U.S.C. 103(a) as being obvious over Hirao et al. (U.S. Patent number 6,709,111) in view of Flory IV (U.S. Patent number 6,388,392) and further in view of Hardy (U.S. Patent number 4,618,803) Hirao et al. in view of Flory IV and further in view of Hardy is capable of providing a storing means comprising a capacitor having a value of at least one farad.

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Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikansha S. Dwivedi whose telephone number is 571-272-7834. The examiner can normally be reached on M-F, 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


VSD


ANTHONY D. STASHICK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700